Removal Action Work Plan Addendum No. 3

Falcon Refinery Superfund Site Ingleside
San Patricio County, Texas
TXD 086 278 058

Prepared for

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May 2011

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1. INTRODUCTION

This report describes past activities performed by National Oil Recovery Corporation (NORCO) as well as upcoming activities associated with the EPA approved Removal Action Work Plan, which was directed by the *Administrative Order on Consent (AOC), CERCLA Docket No 06-04-04* at the Falcon Refinery in Ingleside, Texas.

Provided below are excerpts from the AOC that are pertinent to the scope of work. Each of the required items in the section termed "The Work" will be described in terms of work already completed and work yet to be completed.

Actions associated with the Removal Action were performed under the EPA approved Removal Action Work Plan, dated July 20, 2004.

> ***WORK TO BE PERFORMED***
>
> *The Respondent shall perform, at a minimum, all actions necessary to implement the Order of Work. The actions to be implemented generally include, but are not limited to, the following:*
>
> ***The Work***
>
> *The intent of this action is to remove and dispose of source materials from tanks and other miscellaneous containers, equipment, piping and buildings. This also includes the removal of any source materials in piping associated with transfer or materials to the facility docks or former facility docks. As a result, it may be necessary to demolish or otherwise remove some tanks, piping, equipment, and buildings in order to effectuate this activity. This action may also include the consolidation of materials in onsite tankage for future disposal. If the Respondent elects to consolidate and temporarily store these materials, Respondent must comply with all applicable laws including storage and spill prevention regulations.*

The work includes:

- *Asbestos Inspection and Abatement: The Respondent shall comply with applicable law(s) to address any asbestos and coordinate its handling appropriately with any demolition activities. Therefore, it will be necessary for the Respondent to conduct an asbestos inspection and make appropriate notifications for the conduct of such demolition and asbestos abatement activities as required by applicable law(s).*

- *Assessment and Removal of Hazardous Substances, or Pollutants or Contaminants: The Respondent shall conduct tests and properly classify the wastes for appropriate disposal or recycling.*

- *Decontamination of Containers, Equipment, Piping, and Buildings: The Respondent shall decontaminate all containers, equipment, piping, and buildings to the extent necessary for the purpose of recycling, reuse, or disposal.*

- *Removal of Containers, Equipment, Piping, and other Contaminated Items: The Respondent shall recycle or dispose of containers, equipment, piping, and other potentially contaminated items in accordance with applicable law(s). The metal debris associated with the removal of the containers, equipment, piping, and other items should be recycled to the extent practical.*

- *Consolidation, Removal and Disposal of Grossly Contaminated Soil: The Respondent shall consolidate and then treat or dispose of visibly contaminated surface soils identified during the conduct or resulting from the conduct of this action.*

2. COMPLETED ACTIVITIES

Described in this section are the completed activities associated with "The Work".

2.1. Asbestos Inspection and Abatement

Asbestos sampling, which as performed during August 2004 and reported in the September 2004 Monthly Progress Report, indicated that minimal asbestos was present at the site. Detected asbestos containing materials (ACM) were limited to gaskets associated with various pipeline connections. No friable asbestos materials were present.

2.2. Assessment and Removal of Hazardous Substances, or Pollutants or Contaminants

During September 2004 the contents of all the above ground storage tanks (AST) were gauged to determine the volume of waste and sampled to characterize the waste. An estimated 6.8 million gallons of liquid waste that required disposal was measured. In addition to the liquid waste 62,000 gallons of sludge was measured.

Analytical sampling indicated varied waste streams and compatibility testing was performed of the waste to ensure safe disposal.

Based on the characteristics of the waste deep well injection at the Texas Molecular facility in Corpus Christi was selected. Three tanker trucks a day made three trips each from the refinery to the Texas Molecular facility carrying liquid waste, which resulted in the disposal of 7,774,721 gallons of waste. The waste disposal volume was higher than the estimated amount due to rainfall entering the tanks during disposal operations.

2.3. Decontamination and Removal of Containers, Equipment, Piping, and Buildings

From October 2004 through February 2005 the onsite buildings, abandoned drums and equipment were described, decontaminated, characterized and properly disposed. Results included the recycling of 67,840 pounds of metal, 10 fire extinguishers, and 403 gallons of oil and filters.

Items that couldn't be recycled were disposed, which resulted in the disposal of 16,651 gallons of waste oil.

When oil was discovered leaking in the wetlands adjacent to the refinery, ten pipelines were excavated, cut at five locations and jetted clean prior to having steel caps welded on the pipelines.

2.1.Consolidation, Removal and Disposal of Grossly Contaminated Soil

During September 2004 measurements of grossly contaminated soil based on the surface extent and depth of visibly impacted soil was estimated to be approximately 6,000 cubic yards. Based on the amount of grossly contaminated soil NORCO proposed, to the EPA, the possible construction of bioremediation cells to treat the soil on site rather than disposing of the soil at a hazardous waste facility.

During December 2004 and February 2005, 55 cubic yards of grossly contaminated soil was disposed at the US Ecology Texas Facility in Robstown, with EPA's approval.

The remainder of the grossly contaminated soil cannot be excavated until the sludge is removed from the above ground storage tanks.

3. UPCOMING ACTIVITIES

Described in this section are the upcoming activities associated with "The Work".

3.1. Asbestos Inspection and Abatement

Based on the results of the asbestos sampling performed during 2004, which indicated no friable asbestos, no asbestos inspection or abatement is anticipated. If any asbestos containing materials (ACM) are detected or if a material appears to be ACM, testing will be performed and appropriate measures will be taken.

3.2. Assessment and Removal of Hazardous Substances, or Pollutants or Contaminants

As of September 2009 all liquid waste was removed from all of the above ground storage tanks. However, sludge was measured and remained in Tanks 7, 10, 26, 27 and 30.

Upon approval of the commencement of work by NORCO the initial action will be the measurement of the contents of all tanks and vessels. Tanks leased to Superior Crude Gathering (Superior), which includes Tanks 13, 15 and 16 will not be inspected as they are either in use or are in the process of being repaired. An additional unnamed and unnumbered tank, noted by the EPA as leaking during an inspection will also be evaluated.

After the measurement of the sludge NORCO anticipates mobilizing a centrifuge to separate liquid waste from solid waste. The last estimate of the volume of sludge indicated that there would be approximately 180 tons of solid waste and 15,000 gallons of liquid waste that will need disposal.

When the materials are separated they will be stored in appropriate containers (frac tanks or lined roll off boxes) pending characterization and disposal. The EPA will be notified of any disposal plans and no disposal will take place prior to EPA approval.

3.3. Decontamination and Removal of Containers, Equipment, Piping, and Buildings

When the contents of the tanks are removed a determination will be made about the usability of each tank. If a tank is to be used in the future the inside of the tank will be either steam cleaned or sand blasted and a full American Petroleum Institute (API) 653 internal/external (out-of-service) inspection will be conducted by a properly certified API 653 tank inspector.

For tanks that remain in service repairs will begin immediately to prevent the collection of rainwater in tanks due to leaking roofs.

If a tank is to be razed then the tank will still be cleaned to the level necessary for disposal. The EPA will be notified of the future of each tank and will be allowed to observe the cleaning of the tanks.

Prior to any tank parts leaving the site the EPA will be notified.

Currently there are no plans to remove any of the former refining equipment or to construct any new refining equipment. Prior to any construction the EPA will be notified. Any removed metal will be recycled.

3.4. Consolidation, Removal and Disposal of Grossly Contaminated Soil

During a site inspection in March 2011 there was no grossly contaminated soil observed at the main portion of the refinery or around the storage tanks. The inspection did not include the north property as a result there may be grossly contaminated soil on that property.

On February 9, 2010 Superior, which leases several of the above ground tanks at the site, had a release from Tank 13. Approximately 22,000 barrels of crude oil was released from the tank and onto the site. Remediation efforts, using pumps and vacuum trucks were successful in the recovery of much of the crude oil.

Superior used heavy equipment to scrape off the impacted soil (grossly contaminated), which is still stockpiled at the site pending regulatory approval for disposal. The results were described in the *Site Investigation Report and Remediation Plan, Superior Crude Gathering, Inc, Crude Oil Spill, Ingleside, Texas* dated July 23, 2010 by Pastor, Behling & Wheeler.

Upon approval of the commencement of work by NORCO an assessment will be made of the volume of grossly contaminated soil and the EPA will be notified. Based on the volume of soil NORCO will either propose the construction of a bioremediation cell to treat the soil or will propose disposal at an appropriate facility. No soil will be moved without EPA approval.

Evaluation of potential contamination beneath the tanks will be determined either after a tank has been removed through visual observation and soil sampling or if the tank is to remain in place during RI/FS sampling. The EPA approved Phase II Field Sampling Plan includes borings and permanent monitor wells around the above ground storage tanks. If contamination exists beneath the tanks the results of the RI/FS soil and groundwater sampling will show the impact. If there is contamination that hasn't affected the soil or groundwater adjacent to the above ground storage tanks then the contamination poses minimal risk. The existence of a tank above the contamination prevents the inhalation and dermal exposure pathways associated with the contamination beneath the tank.

The installation of permanent monitor wells during the upcoming Phase II sampling will monitor both the short term and long term risk of potential contamination beneath the tanks.

Any excavated grossly contaminated soil will be replaced by clean fill brought to the site.

4. SCHEDULE

NORCO will begin work when notified by the EPA that actions may commence. The initial tank inspection is expected to take one week to determine the volume of waste in the tanks. Once the volume of waste is determined equipment likely including a centrifuge, frac tanks, pumps, vacuum trucks and associated equipment will be mobilized to the site to begin the removal of the contents of the tanks that contain waste.

As noted previously when the tanks are emptied the tanks will be cleaned to the appropriate level and any grossly contaminated soil around the tanks or around the site will be excavated and either treated on site or disposed of properly.

All work associated with the Removal Action will be completed by December 31. 2011 and all tankage will be cleaned and gas freed no later than August 1, 2011.